

WHAT IS CLAIMED IS:

1. A method of embedding camera information and image capture related information in a digital form of an image, comprising:

receiving information on a first static camera characteristic;

5 receiving camera setting information related to a first captured digitized image;

generating an encryption key based at least in part on the first static camera characteristic;

10 embedding a watermark in said first captured digitized image, wherein the watermark contains at least a portion of the information on the first static characteristic and at least a portion of the camera setting information related to said first captured digitized image; and

encrypting the watermark using the encryption key.

15 2. The method as defined in Claim 1, wherein the first static camera characteristic is an camera image sensor bad pixel characteristic.

3. The method as defined in Claim 1, wherein the first static camera characteristic is related to a sensor current value.

4. The method as defined in Claim 1, wherein the first static camera characteristic is related to a camera image sensor sensitivity.

20 5. The method as defined in Claim 1, wherein the camera setting information includes information related to the flash intensity used to capture the first captured digitized image.

25 6. The method as defined in Claim 1, further comprising including information in the watermark related to the ambient light present when the image was captured by the camera.

7. The method as defined in Claim 1, further comprising including at least a first dynamically measured camera characteristic in the watermark.

8. A digital camera system, comprising:

an imager;

30 a first static camera characteristic associated with the imager;

a first variable camera setting;

a watermark generator used to embed in the form of a watermark at least one of said first static camera characteristic and said first variable camera setting information in an image captured by the camera; and

5           a key generator configured to generate an encryption key used to encrypt the watermark.

9.       The digital camera system as defined in Claim 8, wherein the watermark is visually perceptible.

10.      The digital camera system as defined in Claim 8, wherein the watermark is visually imperceptible.

10       11.    The digital camera system as defined in Claim 8, wherein said first variable camera setting is a shutter speed.

12.      The digital camera system as defined in Claim 8, wherein said first variable camera setting is an aperture setting.

15       13.    The digital camera system as defined in Claim 8, wherein said first variable camera setting is a flash setting.

14.      The digital camera system as defined in Claim 8, wherein said first static camera characteristic is related to an imager current.

15.      The digital camera system as defined in Claim 8, wherein said first static camera characteristic is related to defective pixels associated with the imager.

20       16.    The digital camera system as defined in Claim 8, wherein said first static camera characteristic is gamma information.

17.      A method of extracting camera-related information from an image captured by the camera, comprising:

25           receiving an image;  
          locating a watermark in said image;  
          extracting camera characteristic information and camera setting information associated with the camera used to capture the image from said watermark; and

30           enhancing said imaged based at least in part on the extracted camera characteristic information and camera setting information.

18. The method as defined in Claim 17, further comprising enhancing said imaged based on a reproduction device used to generate a reproduction of said enhanced image.

19. The method as defined in Claim 17, wherein the camera characteristic information includes a pointer into a gamma correction lookup table.

20. The method as defined in Claim 19, wherein the lookup table is stored external to the camera.

21. The method as defined in Claim 17, wherein the camera characteristic information includes F number-related information.

22. The method as defined in Claim 21, further comprising selecting a filter algorithm based at least in part on the F-number related information.

23. The method as defined in Claim 17, further comprising decrypting said watermark utilizing a information associated with the camera.

24. The method as defined in Claim 23, wherein said information associated with the camera is related to at least the number of bad pixels for an imager included in the camera.

25. A method of extracting camera-related information from an image captured by the camera, comprising:

receiving an image;

locating a watermark in said image;

extracting camera setting information associated with the camera used to capture the image from said watermark;

receiving information relating to the gamma of a targeted reproduction device; and

enhancing reproductions of the image made by the targeted reproduction device based at least in part on the extracted camera setting information and the gamma related information.

26. A method of including camera information and image capture related information in association with a digital form of an image, comprising:

capturing an image;

digitizing the image;

receiving information on a first static camera characteristic;

inserting in a data set associated with the digitized image at least a portion of the information on the first static characteristic; and

transmitting the digitized image and the data set to an image processor.

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